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## THREE NEW LARVAL FOOD PLANTS FOR THE BLUE IRIS SKIPPER *MESODINA CYANOPHRACTA* LOWER (LEPIDOPTERA: HESPERIIDAE)

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### Abstract

*Patersonia lanata* R.Br., *Patersonia umbrosa* var. *xanthina* (F.Muell.) Domin and *Patersonia juncea* Lindl. (Iridaceae) are recorded as larval food plants for the blue iris skipper *Mesodina cyanophracta* Lower.

### Introduction

The skipper genus *Mesodina* Meyrick is comprised of five species, all of which are endemic to the Australian faunal subregion (Braby 2000). The larval food plants for all of them are various species of *Patersonia* (Iridaceae). Prior to this paper, four of these species (*Mesodina aeluropis* Meyrick, *M. gracillima* Edwards, *M. hayi* Edwards & Graham and *M. cyanophracta* Lower) were each known to utilize only a single specific food plant. The other species, *M. halyzia* (Hewitson), has been recorded on *P. fragilis*, *P. glabrata*, *P. occidentalis* and *P. sericea* (Edwards 1958, Harslett 1965, Common and Waterhouse 1981, Braby 2000). Our recent observations show that the Western Australian *M. cyanophracta* also uses four species of *Patersonia* as food plants, the previously recorded *P. occidentalis* (Williams *et al.* 1993, Williams and Atkins 1996) plus three new records reported below.

Voucher specimens pertinent to this paper are lodged in the Insect Collection of the Western Australian Department of Environment and Conservation (formerly Department of Conservation and Land Management [CALM]) and in Grant Miller's private collection.

### New food plant records

#### 1. Woolly *Patersonia* - *Patersonia lanata*

In November 2000, a small population of *P. lanata* was located in *Banksia attenuata* woodland on a sandy hill overlooking the town of Bremer Bay in southwestern Western Australia (34°23'S, 119°23'E). An examination of the plants revealed characteristic wedge-shaped feeding scars on the leaves and shelters containing *M. cyanophracta* larvae. The larvae were collected and reared in captivity. As is often the case around Perth, a high proportion of the Bremer Bay larvae had been parasitised by a slender endoparasitic wasp (Hymenoptera: Ichneumonidae), which killed them in the final instar (Williams and Atkins 1996). At Bremer Bay and nearby Fitzgerald River National Park, adults of *M. cyanophracta* are on the wing in December (Williams and Williams 2006).



Fig. 1. Mature *M. cyanophracta* larva feeding at leaf tip of *Patersonia juncea*.

### 2. Yellow Flag - *Patersonia umbrosa* var. *xanthina*

First and second instar *M. cyanophracta* larvae were found on young *P. umbrosa* var. *xanthina* plants growing along a power-line cut immediately south of the town of Kirup (33°40'S, 115°54'E) in March 2002. They were transferred to potted food plant and reared in the warmer climate of northern New South Wales, adults emerging in late November and early December, suggesting a likely emergence in December or early January at Kirup.

Parasitism by ichneumonids was in excess of 80%. Purple-flowered *Patersonia*, probably *P. occidentalis*, was also present in the same locality but showed no evidence of having been utilised by *Mesodina*.

### 3. Rush Leaved Patersonia - *Patersonia juncea*

In April 2006 a single *M. cyanophracta* larva was found in a shelter on a *P. juncea* plant growing on Quinns Forest Block (33°08'12"S, 117°04'28"E), 25 km SSW of Narrogin. The larval food plant was potted and transferred to the Department of Environment and Conservation (DEC) Wildlife Research Centre at Woodvale for observation. The larva was inactive in April and May but commenced feeding in June, at which time it constructed a new, larger shelter by sewing together about 12 leaves of the food plant. The larva